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10/523,377

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Robin J. Blackwell

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EXAMINER

TAHA, SHAQ

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/523,377	<b>Applicant(s)</b> BLACKWELL ET AL.	
	<b>Examiner</b> SHAQ TAHA	<b>Art Unit</b> 2446	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01/25/2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 - 22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)         | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

This is a non-final action for application number 10/523,377 based on after request for continued examination filed on 01/25/2010. The original application was filed on 02/01//2005. Claims 1 – 22 are currently pending and have been considered below. Claims 1 – 5, 7 – 16, 19, 21, and 22 are amended. Claims 1, 8, 9, 11, 15, 19, 21 and 22 are independent claims.

### **Applicant's Response**

Applicant's arguments with respect to claims 1 – 22 have been considered but are moot in view of the new ground(s) of rejection

### **Double Patenting**

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir.

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1985); In re Van Ornum, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); In re Vogel, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and In re Thorington, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-22 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims of copending Application No. 10/523,380. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 3 - 22 contain every element of the instant application and as such anticipate the claims 1-22 of the instant application. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

The subject matter claimed in the instant application is disclosed in the referenced copending application, wherein the referenced copending application and the instant application are claiming common subject matter as follows: the limitation of the instant application in claim one: sending a simple device description query message

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to the second device requesting a simple device description is the same as the limitation in copending application transmitting from a first device to a second device a request for a simple device description message of claim three. Also, the limitation in claim one of the instant application: receiving from the second device a simple device description message of defined length including a device type value representing the type of the second device is the same as the limitation in the copending application of claim three: transmitting from the second device to the first device the simple device description message, and another limitation which is: including by the second device a device type value representing a type the second device in the simple device description message. Also, the limitation of claim one in the instant application: sending a query message to the second device requesting an extended device description from the second device is the same as the limitation of claim five in the copending application: sending an extended device description query message to the at least one other device requesting an extended device description from the at least one other device. The copending application fails to explicitly teach when the simple device description indicates that the extended device description is available and the extended device description is required by the first device, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the copending application by including the missing limitation as taught in Stephens et al., Col. 10, lines 55 – 65. Regarding the limitation of the instant application of claim one: receiving from the second device the extended device description of variable length is the same

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limitation in the copending application of claim five which is receiving from the at least on other device an extended device description of variable length.

Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other copending application. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP ~ 804.

### **Claim Rejections - 35 USC § 101**

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 18 - 20 are rejected under 35 U.S.C. 101. Claims 18 - 20 are directed towards a computer program which is non-statutory subject matter

Computer programs claimed as computer listings per se, i.e., the descriptions or expressions of the programs, are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer

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program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory.

### **Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 – 7 and 15 - 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stephens et al. (US 7,684,438) in view of Zintel et al. (US 2002/0029256) and further in view of an Official Notice

Regarding claims 1, 15, and 18, a method of operation of a first device in a network having plurality of devices including the first device and a second device, the method comprising acts of: sending a simple device description query message to the second device requesting a simple device description, **[a user device initiates a Bluetooth device discovery request, wherein the user of a first device sends a request to a second device requesting device description which is the device discovery such as device name, as shown in Fig. 11, Ref # 1104, (Stephens et al., Col. 9, lines 36 – 40)],**

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receiving from the second device a simple device description message including a device type value representing the type of the second device, **[After determining that it is a device discovery request, the virtual linking system 100 responds with the virtual linking system's device name at a block 1104, wherein the device name is the simple device description and is provided as a character string as shown in Fig. 14, (Stephens et al., Col. 9, lines 35 – 45)],**

sending a query message to the second device requesting an extended device description from the second device when the simple device description indicates that the extended device description is available and the extended device description is required by the first device, **[The virtual linking system 100 returns to the block 1100 and awaits another request from the user device. Next, the user device initiates a Bluetooth service discovery request. Such a request is initiated as a result of a device discovery response or by the user wishing to access a service that a discovered device may be able to offer, wherein the service discovery is the extended device description requested by the user and is requested after a simple device description is received and indicates that an extended device description is available, (Stephens et al., Col. 9, Lines 46 – 53)],**

receiving from the second device the extended device description when the extended device description is available on the second device and an extended device description is required by the first device, **[once extended device description is requested in step 1106 in Fig. 11, step 1116 provides the availability of the service provided by the device and at step 1120 the user device which is the second**



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**device receives virtual service name associated with first device, by requesting service discovery it means that the service discovery is required and as shown in Fig. 11 the service discovery is available,(Stephens et al., Col. 10, lines 55 - 65)],**

Stephens et al. fails to teach that the simple device description and the extended device description have a defined/variable length,

Zintel et al. teaches the Content-Length header will be the number of bytes in the XML body, wherein the XML body represents device description as shown in Fig. 14, wherein simple device description is requested and has a defined length and extended device is further requested that has a variable length, **(Zintel et al., Paragraph 440)**, in order to include in the device description manufacturer information, model name and number, and serial number, **(Zintel et al., Abstract)**,

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Stephens et al. by including that the simple device description and the extended device description have a defined length, **(Zintel et al., Paragraph 440)**, in order to include in the device description manufacturer information, model name and number, and serial number, **(Zintel et al., Abstract)**.

Stephens et al. in view of Zintel et al. does not specifically disclose not sending the query message to the second device when at least one of the simple device description indicates that the extended device description is not available and the extended device description is not required by the first device. However it is well known in the art that not send a query message requesting a device description when the device description is not available and not required. By this rationale, "Official Notice" is

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taken that both the concept and advantages of providing for not sending the query message to the second device when at least one of the simple device description indicates that the extended device description is not available and the extended device description is not required by the first device. It would have been obvious to one of ordinary skill in the art to modify the teaching of Stephens and Zintel to include not specifically disclose not sending the query message to the second device when at least one of the simple device description indicates that the extended device description is not available and the extended device description is not required by the first device.

Regarding claim 2, the method according to claim 1, further comprising an act of establishing the network address of the second device before the act of sending a simple device description to the second device, **[Fig. 8, Ref # 810, wherein the user device which is the second device is connected through a Bluetooth radio network, (Stephens et al., Col. 9, lines 15 - 20)]**.

Regarding claim 3, Stephens et al. teaches a system and method for virtual linking a wireless device to another device, **(Stephens et al., Abstract)**,

Stephens et al. fails to teach that the simple device description message is in the form of a token-compressed message compressed from a human-readable message format, the simple device description message including a device type value representing the device type of the second device,

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Zintel et al. teaches that UPnP utilizes XML-based schema to describe device structures and operational functions exposed by a UPnP Controlled Device and XML message-based protocols for their invocation, **(Zintel et al., Paragraph 184)**, in order to describe the device and any services supported by the device. The template language is written using an XML-based syntax that organizes and structures the elements, **(Zintel et al., Abstract)**,

the device type value being selected from a device type hierarchy having predetermined top level elements including a controller device type and a basic device type, and at least one further level of subsidiary device types depending from the basic device type and inheriting properties of higher level device types on which the subsidiary device type depends, but not including any further level of subsidiary device types depending from the controller device type, (The device Model includes the addressing scheme, eventing scheme, Description Document schema, Devices and Services schema hierarchy, and the functional description of models, **(Zintel et al., Paragraph 135)**, in order to enable multiple User Control Points to have a consistent view of Controlled Devices, **(Zintel et al., Paragraph 135)**,

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Stephens et al. by including that the device type value being selected from a device type hierarchy having predetermined top level elements including a controller device type and a basic device type, **(Zintel et al., Paragraph 135)**, in order to enable multiple User Control Points to have a consistent view of Controlled Devices, **(Zintel et al., Paragraph 135)**.

Regarding claim 4, the method according to claim 3, wherein the first device is a controller device comprising a list of device types that the controller can control, **[The controller 130 is configured to initiate device discovery and service discovery for creation and maintenance of the VDT 820 continuously, periodically, upon addition or deletion of a resource, or upon request by a personnel, such as a system administrator, (Stephens et al., Col. 12, lines 12 – 20)]**.

Regarding claim 5, the method according to claim 4, the method further comprising an act of determining whether the first device can control the second device by: determining the lowest level of device type that either is the device type of the second device or is a higher level device type from which the device type of the second device depends, in the list of device types that can be controlled by the controller, to determine the extent to which the first device can control the second device, **[The access associated with the devices may be controlled for security reasons (e.g., a guest user cannot have access to a server), ease of use (e.g., a user may be presented with "The nearest printer" and "My printer" rather than a list of all available printers), or a variety of other reasons, (Stephens et al., Col. 11, lines 55 – 60)]**.

Regarding claim 6, the method according to claim 5, further comprising acts of: receiving a controller query message including a requested device type value to request

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whether the controller is able to control a device of the requested device type, **[The list of device types to advertise to, e.g., PDAs only, headsets only, all devices, etc., is a default value, (Stephens et al., Col. 13, lines 35 – 40)],**

and responding with a controller response message including a device type value representing the lowest level of device type in the list of device types that either is the requested device type or is a higher level device type from which the requested device type depends, **[Fig. 11, Ref # 1104].**

Regarding claims 7 and 17, the method according to claim 2, wherein the predetermined top level elements in the device type hierarchy further include a composite device type, and the first device is of the composite device type having the functionality of an integer number of other devices, the method further comprising an act of: responding to a received simple device description query message by sending a simple device description message including the device type value representing the device as a composite device and further an integer sub-device number being the number of other devices, , **[After determining that it is a device discovery request, the virtual linking system 100 responds with the virtual linking system's device name at a block 1104, wherein the device name is the simple device description and is provided as a character string as shown in Fig. 14, (Stephens et al., Col. 9, lines 35 – 45)].**

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Regarding claim 16, the system according to claim 15, wherein the plurality of networked devices includes at least one simple device without the capability to decompress messages and interpreting directly compressed messages and at least one complex device including a message decompression arrangement for decompressing the messages and a message interpreter for interpreting the decompressed messages, **[In the transparent virtual linking service, translation or interpretation of the link stream is not required. In the non-transparent virtual linking service, translation is required to take into account dissimilar profiles between the initiating device and the resource device, (Stephens et al., Col. 8, lines 55 - 60)]**.

Claims 8 – 14, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stephens et al. (US 7,684,438) in view of Zintel et al. (US 2002/0029256)

Regarding claim 8, a method of operation of a first device to communicate with at least one of a plurality of second devices, the method comprising acts of: receiving a simple device description query message from one of the plurality of second devices requesting a simple device description, **[a user device initiates a Bluetooth device discovery request, wherein the user of a first device sends a request to a second device requesting device description which is the device discovery such as device name, as shown in Fig. 11, Ref # 1104, (Stephens et al., Col. 9, lines 36 – 40)]**,

sending to the one of the plurality of second devices, a simple device description message of defined length including a device type value representing a type of the networked first device, **[After determining that it is a device discovery request, the virtual linking system 100 responds with the virtual linking system's device name at a block 1104, wherein the device name is the simple device description and is provided as a character string as shown in Fig. 14, (Stephens et al., Col. 9, lines 35 – 45)],**

receiving an extended device description query message from the one of the plurality of second devices requesting an extended device description from the networked first device when said one of the plurality of second devices requires the extended device description, **[The virtual linking system 100 returns to the block 1100 and awaits another request from the user device. Next, the user device initiates a Bluetooth service discovery request. Such a request is initiated as a result of a device discovery response or by the user wishing to access a service that a discovered device may be able to offer, wherein the service discovery is the extended device description requested by the user and is requested after a simple device description is received and indicates that an extended device description is available, (Stephens et al., Col. 9, Lines 46 – 53)],**

sending the extended device description of variable length to the one of the plurality of second devices when the extended device description is available on the first device and the extended device description is required by the one of the plurality of second devices, **[once extended device description is requested in step 1106 in**

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**Fig. 11, step 1116 provides the availability of the service provided by the device and at step 1120 the user device which is the second device receives virtual service name associated with first device, (Stephens et al., Col. 10, lines 55 - 65)],**

Stephens et al. fails to teach that the simple device description and the extended device description have a defined/variable length,

Zintel et al. teaches the Content-Length header will be the number of bytes in the XML body, wherein the XML body represents device description as shown in Fig. 14, wherein simple device description is requested and has a defined length and extended device is further requested that has a variable length, **(Zintel et al., Paragraph 440)**, in order to include in the device description manufacturer information, model name and number, and serial number, **(Zintel et al., Abstract)**,

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Stephens et al. by including that the simple device description and the extended device description have a defined length, **(Zintel et al., Paragraph 440)**, in order to include in the device description manufacturer information, model name and number, and serial number, **(Zintel et al., Abstract)**.

Regarding claim 9, a networked device including: a transceiver for sending and receiving messages, and a message handler arranged in a communication network with a plurality of second devices, the networked device being configured to perform acts of, in response to receiving a simple device description query message from one of the plurality of second devices, **[a user device initiates a Bluetooth device discovery**



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**request, wherein the user of a first device sends a request to a second device requesting device description which is the device discovery such as device name, as shown in Fig. 11, Ref # 1104, (Stephens et al., Col. 9, lines 36 – 40)],**

sending to the one of the plurality of second devices, a simple device description message of defined length including a device type value representing the type of the networked device, **[After determining that it is a device discovery request, the virtual linking system 100 responds with the virtual linking system's device name at a block 1104, wherein the device name is the simple device description and is provided as a character string as shown in Fig. 14, (Stephens et al., Col. 9, lines 35 – 45)],**

in response to receiving an extended device description query message from an other one of the plurality of second devices, **[The virtual linking system 100 returns to the block 1100 and awaits another request from the user device. Next, the user device initiates a Bluetooth service discovery request. Such a request is initiated as a result of a device discovery response or by the user wishing to access a service that a discovered device may be able to offer, wherein the service discovery is the extended device description requested by the user and is requested after a simple device description is received and indicates that an extended device description is available, (Stephens et al., Col. 9, Lines 46 – 53)],**

sending to the other device of the plurality of second devices, an extended device description of variable length when the extended device description is available,, **[once extended device description is requested in step 1106 in Fig. 11, step 1116**

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**provides the availability of the service provided by the device and at step 1120 the user device which is the second device receives virtual service name associated with first device, (Stephens et al., Col. 10, lines 55 - 65)],**

Stephens et al. fails to teach that the simple device description and the extended device description have a defined/variable length,

Zintel et al. teaches the Content-Length header will be the number of bytes in the XML body, wherein the XML body represents device description as shown in Fig. 14, wherein simple device description is requested and has a defined length and extended device is further requested that has a variable length, **(Zintel et al., Paragraph 440)**, in order to include in the device description manufacturer information, model name and number, and serial number, **(Zintel et al., Abstract)**,

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Stephens et al. by including that the simple device description and the extended device description have a defined length, **(Zintel et al., Paragraph 440)**, in order to include in the device description manufacturer information, model name and number, and serial number, **(Zintel et al., Abstract)**,

Stephens et al. in view of Zintel et al. does not specifically disclose not sending the query message to the second device when at least one of the simple device description indicates that the extended device description is not available and the extended device description is not required by the first device. However it is well known in the art that not send a query message requesting a device description when the device description is not available and not required. By this rationale, "Official Notice" is

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taken that both the concept and advantages of providing for not sending the query message to the second device when at least one of the simple device description indicates that the extended device description is not available and the extended device description is not required by the first device. It would have been obvious to one of ordinary skill in the art to modify the teaching of Stephens and Zintel to include not specifically disclose not sending the query message to the second device when at least one of the simple device description indicates that the extended device description is not available and the extended device description is not required by the first device.

Regarding claims 10 and 12, Stephens et al. teaches a system and method for virtual linking a wireless device to another device, **(Stephens et al., Abstract)**,

Stephens et al. fails to teach that the simple device description message is in the form of a token-compressed message compressed from a human-readable message format, the simple device description message including a device type value representing the device type of the second device,

Zintel et al. teaches that UPnP utilizes XML-based schema to describe device structures and operational functions exposed by a UPnP Controlled Device and XML message-based protocols for their invocation, **(Zintel et al., Paragraph 184)**, in order to describe the device and any services supported by the device. The template language is written using an XML-based syntax that organizes and structures the elements, **(Zintel et al., Abstract)**,

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the device type value being selected from a device type hierarchy having predetermined top level elements including a controller device type and a basic device type, and at least one further level of subsidiary device types depending from the basic device type and inheriting properties of higher level device types on which the subsidiary device type depends, but not including any further level of subsidiary device types depending from the controller device type, (The device Model includes the addressing scheme, eventing scheme, Description Document schema, Devices and Services schema hierarchy, and the functional description of models, **(Zintel et al., Paragraph 135)**, in order to enable multiple User Control Points to have a consistent view of Controlled Devices, **(Zintel et al., Paragraph 135)**,

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Stephens et al. by including that the device type value being selected from a device type hierarchy having predetermined top level elements including a controller device type and a basic device type, **(Zintel et al., Paragraph 135)**, in order to enable multiple User Control Points to have a consistent view of Controlled Devices, **(Zintel et al., Paragraph 135)**.

Regarding claim 11, the networked device, including: a transceiver (8) for sending and receiving messages a message handler in a communication network with a plurality of second devices, the networked device being configured to perform acts of sending a simple device description query message to one of the plurality of second devices requesting a simple device description, **[a user device initiates a Bluetooth**

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**device discovery request, wherein the user of a first device sends a request to a second device requesting device description which is the device discovery such as device name, as shown in Fig. 11, Ref # 1104, (Stephens et al., Col. 9, lines 36 – 40)],**

receiving from one of the plurality of second devices a simple device description message of fixed length including a device type value representing the type of the one of the plurality of second devices and a field indicating whether an extended device description is available, **[After determining that it is a device discovery request, the virtual linking system 100 responds with the virtual linking system's device name at a block 1104, wherein the device name is the simple device description and is provided as a character string as shown in Fig. 14, (Stephens et al., Col. 9, lines 35 – 45)],**

testing the simple device description message to determine whether an extended device description is available, **[the virtual linking system 100 examines the request at a block 1102. After determining that it is a device discovery request, the virtual linking system 100 responds with the virtual linking system's device name at a block 1104, wherein the message is tested to determine the availability of the device description such as the name and the type, (Stephens et al., Col. 9, lines 40 - 50)],**

and receiving from the one of the plurality of second devices an extended device description of variable length if the extended device description is available, **[once extended device description is requested in step 1106 in Fig. 11, step 1116**

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**provides the availability of the service provided by the device and at step 1120 the user device which is the second device receives virtual service name associated with first device, (Stephens et al., Col. 10, lines 55 - 65)],**

Stephens et al. fails to teach that the simple device description and the extended device description have a defined/variable length,

Zintel et al. teaches the Content-Length header will be the number of bytes in the XML body, wherein the XML body represents device description as shown in Fig. 14, wherein simple device description is requested and has a defined length and extended device is further requested that has a variable length, **(Zintel et al., Paragraph 440)**, in order to include in the device description manufacturer information, model name and number, and serial number, **(Zintel et al., Abstract)**,

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Stephens et al. by including that the simple device description and the extended device description have a defined length, **(Zintel et al., Paragraph 440)**, in order to include in the device description manufacturer information, model name and number, and serial number, **(Zintel et al., Abstract)**.

Regarding claim 13, the method according to claim 4, the method further comprising an act of determining whether the first device can control the second device by: determining the lowest level of device type that either is the device type of the second device or is a higher level device type from which the device type of the second device depends, in the list of device types that can be controlled by the controller, to

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determine the extent to which the first device can control the second device, **[The access associated with the devices may be controlled for security reasons (e.g., a guest user cannot have access to a server), ease of use (e.g., a user may be presented with "The nearest printer" and "My printer" rather than a list of all available printers), or a variety of other reasons, (Stephens et al., Col. 11, lines 55 – 60)].**

Regarding claims 14, the method according to claim 5, further comprising acts of: receiving a controller query message including a requested device type value to request whether the controller is able to control a device of the requested device type, **[The list of device types to advertise to, e.g., PDAs only, headsets only, all devices, etc., is a default value, (Stephens et al., Col. 13, lines 35 – 40)],**

and responding with a controller response message including a device type value representing the lowest level of device type in the list of device types that either is the requested device type or is a higher level device type from which the requested device type depends, **[Fig. 11, Ref # 1104].**

Regarding claims 19 and 20, a computer program for controlling a first device, the first device having a transport stack and an application, the computer program comprising: code implementing a transport adaption layer for interfacing with the transport stack, **[The network connector 206, also referred to as communication**

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**facilities, comprises communication interfaces for the controller 130 to connect to the network 102, (Stephens et al., Col. 4, lines 60 – 65)],**

code implementing an application programming interface for interfacing with the application, **[The network connector 206, also referred to as communication facilities, comprises communication interfaces for the controller 130 to connect to the network 102, (Stephens et al., Col. 4, lines 60 – 65)],**

to recognize incoming device query messages requiring a simple device description response and to provide a simple device description response including a device type, **[After determining that it is a device discovery request, the virtual linking system 100 responds with the virtual linking system's device name at a block 1104, wherein the device name is the simple device description and is provided as a character string as shown in Fig. 14, (Stephens et al., Col. 9, lines 35 – 45)],**

and to recognize incoming device query messages requiring an extending device description and to respond with an extended device description when the extended device description is available, and not respond with the extended device description when the extended device description is not available, **[once extended device description is requested in step 1106 in Fig. 11, step 1116 provides the availability of the service provided by the device and at step 1120 the user device which is the second device receives virtual service name associated with first device, (Stephens et al., Col. 10, lines 55 - 65)],**



Stephens et al. fails to teach a code implementing a messaging layer including the capabilities of sending and receiving messages in a token-encoded human readable messaging format, the code being arranged to cause the first device,

Zintel et al. teaches that UPnP utilizes XML-based schema to describe device structures and operational functions exposed by a UPnP Controlled Device and XML message-based protocols for their invocation, wherein the device description is written using XML based syntax which is a human readable format, **(Zintel et al., Paragraph 184)**, in order to describe the device and any services supported by the device. The template language is written using an XML-based syntax that organizes and structures the elements, **(Zintel et al., Abstract)**,

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Stephens et al. by including a code implementing a messaging layer including the capabilities of sending and receiving messages in a token-encoded human readable messaging format, the code being arranged to cause the first device, **(Zintel et al., Paragraph 184)**, in order to describe the device and any services supported by the device. The template language is written using an XML-based syntax that organizes and structures the elements, **(Zintel et al., Abstract)**.

Claims 21 – 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zintel et al. (US 2002/0029256) in view of) McGinnis et al. (7,603,408)

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Regarding claims 21 and 22, Zintel et al. teaches a method of utilizing a network establishment and management protocol for controlling a plurality of electronic devices, the method comprising acts of: defining a generic message format, the messages being compressed XML compliant messages, **[The UPnP user control points can use this XML-based schema description to invoke and thereby control the UPnP Controlled Device at a usage layer 360, (Zintel et al., Paragraph 185)],**

and defining message sequencing requirements, wherein said plurality of electronic devices include at least one device capable of recognizing only a compressed message and providing only a simple value to represent a description of its type, **[This message exchange happens according to a specific Service Control Protocol (SCP) 402, which specifies the content and sequence of the messages exchanged, wherein the message sequence is a sequence of requesting device descriptions and responses, (Zintel et al., Paragraph 207)],**

Zintel et al. fails to teach providing a compression algorithm defining the mechanism for compression of said messages,

McGinnis et al. teaches provide compression techniques that enable the wireless handheld computer to complete a web based information request using only one packet up to a proxy server and only one packet back down to the wireless communications device, **(McGinnis et al., Col. 5, lines 30 - 35)**, in order to use fewer bytes, **(McGinnis et al., Col. 6, line 48 - 55)**,

wherein said plurality of electronic devices include at least a first device capable of decompressing the compressed message and providing an extended device

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description when the extended device description is available and at least a second device not capable of decompressing the compressed message, and wherein the compressed message indicates whether the extended device description is available, **[The proxy server 180 decompress information from the wireless network side for use on the Internet 190 side of the proxy server 180, (McGinnis et al., Col. 7, lines 7 - 15)],**

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Zintel et al. providing a compression algorithm defining the mechanism for compression of said messages, **(McGinnis et al., Col. 5, lines 30 - 35),** in order to use fewer bytes, **(McGinnis et al., Col. 6, line 48 - 55).**

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Shaq Taha** whose telephone number is 571-270-1921. The examiner can normally be reached on 8:30am-5pm Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Jeff Pwu** can be reached on 571-272-6798.

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/S. T./

Examiner, Art Unit 2446

/Jeffrey Pwu/

Supervisory Patent Examiner, Art Unit 2446